

Remarks

Claims 2 and 4-12 are pending in this application.

New claim 4 corresponds to deleted claim 1 with n being restricted to 4 and M¹ being a metal of group IV of the Periodic Table of the Elements. New claim 5 is supported at page 2, lines 11-12 of the specification. New claim 6 is supported at page 6, lines 8-18 and new claim 7 is supported at page 3, line 8.

The examiner is requested to favorably reconsider the rejection of the claims herein under 35 U.S.C. 103(a) as being unpatentable over EP 0 416 815 in view of U.S. Pat. No. 5,264,590 in view of the foregoing amendment. Since both references teach only adducts of a metal of group IV of the Periodic Table of the Elements and n=3(see, for example, EP 0 416 815 at examples 80 or 104 and U.S. Pat. No. 5,264,590 in the examples and the abstract, the present claims are not rendered obvious by these references under 35 U.S.C. 103(a).

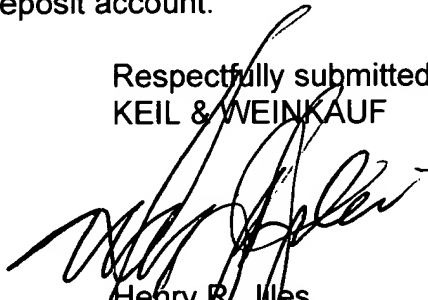
Claims 8-12 correspond to claims 10-14 of Sullivan et al. U.S. Pat. No. 6,015,916 and have been copied as suggested by the examiner for purposes of an interference. The claims identical to claims 10-12 of the patent are supported by the applicants' example 9 on page 35. The claim identical to claim 13 of the patent is supported by page 21, lines 3-11 and the claim identical to claim 14 of the patent is supported by page 21, lines 12-15. The declaration of an interference is solicited.

Please find attached a check for \$110.00 for a one month extension of time fee.

BINGEL et al. Serial No. 09/508,057

To the extent necessary, applicant(s) petition for an Extension of Time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees to Deposit Account No. 11-0345. Please credit any excess fees to such deposit account.

Respectfully submitted,
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Please cancel claim 1. ✓

Please add the claims 4-12 as follows:

4.(newly added) A process for preparing a metallocene, which comprises reacting a ligand starting compound with an adduct of the formula (I),



wherein M¹ is a metal of group III, V or VI of the Periodic Table of the Elements or an element of the Lanthanide or actinides series and n is 2, 3, 4, 5 or 6 and corresponds to the oxidation number of the metal M¹

or where M¹ is a metal of group IV of the Periodic Table of the Elements and n is 4,

and X are identical or different are each halogen, C₁-C₁₀-alkoxy-, C₈-C₁₀- aryloxy, C₁-C₁₀-alkylsulfonate, C₁-C₁₀-alkylcarboxylate, or 1,3-dicarbonylate,

a is an integer or fraction and 0 < a ≤ 4

and D is a linear, cyclic or branched oligoether or polyether containing at least two oxygen atoms or an oligothioether or polythioether containing at least two sulfur atoms.

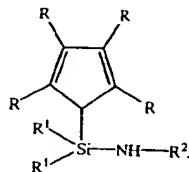
5.(newly added) The process as claimed in claim 4, wherein M¹ is titanium, zirconium or hafnium.

6.(newly added) The process as claimed in claim 4, wherein the metallocene is a bridged or unbridged biscyclopentadienyl complex, a monocyclopentadienyl complex, a multinuclear monocyclopentadienyl complex, a tetrahydropentalene complex or a tetrahydroindene complex.

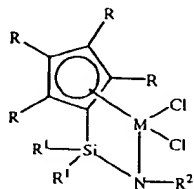
7.(newly added) The process as claimed in claim 4, wherein D is 1,2-dimethoxyethane.

8.(newly added) A method which comprises:

(i) reacting an alkali salt of a compound of Formula I



with a slurry of a TiCl₄-DME adduct in a non-interfering medium wherein a reaction mixture containing a compound of Formula II



is produced.

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9.(newly added) The method of claim 8 wherein said alkali metal salt is a lithium salt.

10.(newly added) The method of claim 8 wherein said non-interfering medium is a hydrocarbon medium.

11.(newly added) The method of claim 8 wherein said non-interfering medium is Isopar E, or hexanes, or a mixture of Isopar E and diethyl ether, or a mixture of hexanes and diethyl ether.

12. (newly added) The method of claim 8 conducted at a temperature of -20°C to 0°C.

COPY OF ALL CLAIMS

2. The process as claimed in claim 1, wherein the ligand starting compound is deprotonated using a base.
4. A process for preparing a metallocene, which comprises reacting a ligand starting compound with an adduct of the formula (I),



wherein M^1 is a metal of group III, V or VI of the Periodic Table of the Elements or an element of the Lanthanide or actinides series and n is 2, 3, 4, 5 or 6 and corresponds to the oxidation number of the metal M^1

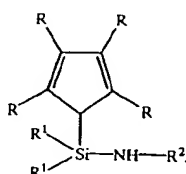
or where M^1 is a metal of group IV of the Periodic Table of the Elements and n is 4,

and X are identical or different are each halogen, C_1 - C_{10} -alkoxy-, C_8 - C_{10} - aryloxy, C_1 - C_{10} -alkylsulfonate, C_1 - C_{10} -alkylcarboxylate, or 1,3-dicarbonylate,

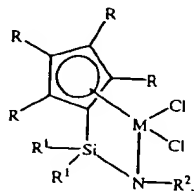
a is an integer or fraction and $0 < a \leq 4$

and D is a linear, cyclic or branched oligoether or polyether containing at least two oxygen atoms or an oligothioether or polythioether containing at least two sulfur atoms.

5. The process as claimed in claim 4, wherein M^1 is titanium, zirconium or hafnium.
6. The process as claimed in claim 4, wherein the metallocene is a bridged or unbridged biscyclopentadienyl complex, a monocyclopentadienyl complex, a multinuclear monocyclopentadienyl complex, a tetrahydropentalene complex or a tetrahydroindene complex.
7. The process as claimed in claim 4, wherein D is 1,2-dimethoxyethane.
8. A method which comprises:
 - (i) reacting an alkali salt of a compound of Formula I



with a slurry of a $TiCl_4$.DME adduct in a non-interfering medium wherein a reaction mixture containing a compound of Formula II



is produced.

9. The method of claim 8 wherein said alkali metal salt is a lithium salt.
10. The method of claim 8 wherein said non-interfering medium is a hydrocarbon medium.
11. The method of claim 8 wherein said non-interfering medium is Isopar E, or hexanes, or a mixture of Isopar E and diethyl ether, or a mixture of hexanes and diethyl ether.
12. The method of claim 8 conducted at a temperature of -20°C to 0°C.